

SM3H--5.1 odd answers

1. composite function, $f(g(x))$

3. False

5a. 3

5c. 1

5e. -1

5g. 5

7a. $h(x) = \left(\frac{1}{x-1}\right)^2 - 1$ Domain = $(-\infty, 1) \cup (1, \infty)$

7b. $h(x) = \frac{1}{x^2-2}$ Domain = $(-\infty, -\sqrt{2}) \cup (-\sqrt{2}, \sqrt{2}) \cup (\sqrt{2}, \infty)$

7c. $h(x) = x^4 - 2x^2$ Domain = $(-\infty, \infty)$

7d. $h(x) = \frac{x-1}{-x+2}$ Domain = $(-\infty, 1) \cup (1, 2) \cup (2, \infty)$

9. -1

11. $\frac{45}{44}$

13. 11

15. work is the answer

17. x

19. $V = 2\pi r^3$

21. $f(x) = x(x+4)(x-2)$

23. $5(2x+3y)(2x-3y)$